

HEALTHCARE-ASSOCIATED
INFECTIONS IN ALABAMA
ANNUAL REPORT

2017



201 Monroe Street, Montgomery, AL 36104 Phone: 334-206-5971 • 1-800-338-8374 (Toll-Free) www.alabamapublichealth.gov/hai

This report has been prepared by the Alabama Department of Public Health.

Healthcare-Associated Infections Program

Allison Roebling, D.V.M., M.P.H., Healthcare-Associated Infections Co-Coordinator and Epidemiologist

Melanie Chervony, M.P.H., Healthcare-Associated Infections Co-Coordinator and Epidemiologist

Tammy Langlois, B.S.N., R.N., Healthcare-Associated Infections Nurse Manager

Miriam Lee, B.S.N., R.N., Healthcare-Associated Infections Staff Nurse

Kelly Stevens, M.S., Director, Infectious Diseases & Outbreaks Division

Sherri Davidson, M.P.H., Interim State Epidemiologist

Healthcare Data Advisory Council

Chairman: Scott Harris, M.D., M.P.H., State Health Officer

TABLE OF CONTENTS **Executive Summary** 4 Introduction 6 Healthcare Facilities Defined 7 Method of HAI Data Collection 7 **Reporting Variables** 8 Catheter-Associated Urinary Tract Infection (CAUTI) 8 Central Line-Associated Bloodstream Infection (CLABSI) Surgical Site Infection (SSI) 9 Volume (Low, Medium, and High) 9 **Accuracy in HAI Reporting** 10 ADPH Data Validation Program 10 **CLABSI Validation** 11 **CAUTI Validation** 12 **Performance Measurement** 13 Risk Adjustment 13 Standardized Infection Ratio 13 Minimal Reporting Thresholds 13 Hospital Performance Compared to 2015 National Baseline Data 14 The 2015 Rebaseline and Annual Progress Comparisons **15** Pathogens Involved in Surgical Site Infections, 2017 16 HAI Data, Statewide **17** HAI Data, Hospital-Specific 21 **HAI Reporting Regions** 21 50 **Definitions and Acronyms** Alabama Hospitals Reporting Data **51** Alabama Healthcare Data Advisory Council 2017 Members 54

EXECUTIVE SUMMARY

Healthcare-associated infections (HAIs) are infections that patients acquire while receiving care in a hospital or other healthcare facility. They can significantly delay recovery and sometimes even lead to debilitation or death. For these reasons, understanding the burden of HAIs in Alabama is important for our citizens, our healthcare facilities, and our government.

Alabama hospitals began reporting four infection measures to the Alabama Department of Public Health (ADPH) in 2011: catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), and surgical site infections (SSIs) associated with colon surgeries and abdominal hysterectomies. Alabama law requires that hospitals report HAI data through the National Healthcare Safety Network (NHSN), a secure internet-based surveillance system maintained by the Centers for Disease Control and Prevention (CDC). This 2017 Annual Report highlights Alabama's seventh year of reporting infection measure data. Prior reports compared Alabama's data to national baseline data from 2006-2009. This report marks the first year in which the national baseline data for comparison is from 2015. This means that the SIRs will generally be higher than those from previous reports due to general improvement in infection control across the United States (see page 15 for more details). Because of the method of calculation used in NHSN, statewide SIRs exclude critical access hospitals.

In 2017, 92 facilities in Alabama reported CAUTI data.¹ These hospitals reported 374 CAUTIs associated with 434,730 catheter days. This is a decrease in CAUTIs from 2016, when 403 CAUTIs were reported by 92 hospitals, over 452,404 catheter days. The 2017 standardized infection ratio (SIR) was 0.76, indicating that Alabama hospitals had significantly fewer infections than predicted based on the 2015 national baseline data for the third year in a row. Four hospitals performed better than expected, and none performed worse.

In 2017, 210 CLABSIs associated with 209,723 central line days were reported by 70 Alabama hospitals that met the reporting criteria. Alabama's performance was statistically similar to the 2015 national baseline with an SIR of 0.91, continuing a three-year trend of steady improvement. Three hospitals performed better than the national baseline, and two performed worse.

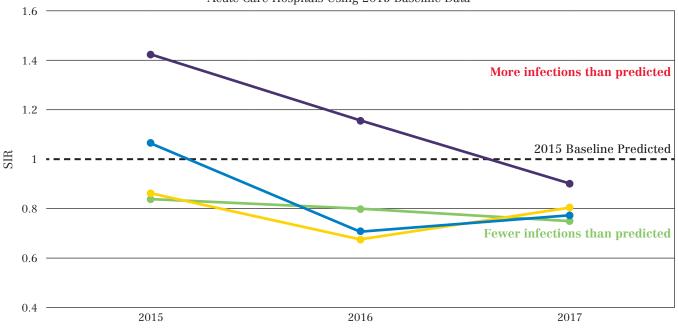
For colon SSIs, Alabama hospitals performed significantly better than the national baseline in adult procedures. For 6,952 adult colon procedures, 116 deep and organ-level SSIs were identified, resulting in an SIR of 0.80. The statewide adult SIR has been better than national performance for two years in a row, although it is slightly increased from last year.

For abdominal hysterectomy SSIs, Alabama hospitals' performance was similar to the national baseline in adult procedures. For 6,952 adult abdominal hysterectomies, 33 deep and organ-level SSIs were identified, resulting in an SIR of 0.77. The statewide adult SIR was slightly better than the baseline in 2016 and similar in 2015.

¹Two facilities were excluded from individual data; one because of closure and one because it was not open the whole year

Alabama SIRs by Year

Acute Care Hospitals Using 2015 Baseline Data



	2015	2016	2017
CAUTI SIRs	0.84	0.79	0.76
	1.42	1.16	0.91
Adult Colon SSI SIRs	0.86	0.68	0.8
Adult Abdominal Hysterectomy SSI SIRs	1.06	0.71	0.77

INTRODUCTION

A healthcare-associated infection (HAI), also referred to as a nosocomial infection, is a type of infection that patients acquire while receiving treatment in a healthcare setting. Healthcare settings may include hospitals, clinics, long-term care facilities, dialysis centers, and rehabilitation facilities. HAIs may be associated with a variety of conditions such as certain surgical procedures, overuse of antibiotics, and non-adherence to proper disinfection techniques like handwashing. Additionally, use of medical devices like urinary catheters, central lines, and ventilators increases patients' risk of HAIs. Many criteria exist for evaluating the presence of HAIs. The infection's timing is important; HAIs must occur within a specific window of time in relation to a procedure or event. As such, not all infections present while a patient is hospitalized qualify for reporting as HAIs. Additionally, diagnostic tests and/or patient symptoms may be important to identify HAIs. Alabama, like most other states, uses specific criteria described by the Centers for Disease Control and Prevention (CDC) in order to determine when an infection should be reported as an HAI.

The Mike Denton Infection Reporting Act (SB98) was passed on August 1, 2009, by the State of Alabama in an effort to combat HAIs. The Act requires the collection and reporting of certain HAI data by specific Alabama healthcare facilities. It designates the Alabama Department of Public Health (ADPH) as the agency responsible for the analysis of submitted data and creates a Healthcare Data Advisory Council (HDAC) to assist with development of the HAI reporting and prevention program. The Infection Reporting Act also makes provisions for the development of certain rules and regulations, as well as the development of public reports comparing the HAI data.

Data collected through the provisions of the Infection Reporting Act is of great interest to our communities. Consumer demand for information about the performance of healthcare providers has increased steadily over the past decade. In response, many state and national initiatives now mandate health care organizations to publicly disclose information regarding institutional performance. Public reporting of health care performance enables stakeholders, including consumers, to make more informed choices on health care issues.

Despite collective efforts to control HAIs, **1 in 25** hospital patients has had at least one HAI. In 2011, there were an estimated 722,000 HAIs in U.S. acute care hospitals. The same year, about 75,000 hospital patients with HAIs died during their hospitalizations². The high number of healthcare-associated infections imposes a significant burden on the population in terms of morbidity and mortality. Financial impact is similarly substantial; a 2009 CDC report estimated the annual medical costs attributable to HAIs in U.S. hospitals to be between \$35.7 billion and \$45 billion³.

For more details regarding the Advisory Council members, the Alabama State HAI Action Plan, Alabama Reporting Prevention Program, Rules and Regulations, and NHSN visit http://www.alabamapublichealth.gov/HAI

³ Scott, DR. The direct medical costs of healthcare-associated infections in US hospitals and the benefits of prevention. Centers for Disease Control and Prevention. March 2009. Available at: https://www.cdc.gov/HAI/pdfs/hai/Scott_CostPaper.pdf



²Centers for Disease Control and Prevention, Healthcare-associated Infections (HAIs), Data and Statistics. Available at: http://www.cdc.gov/HAI/surveillance/

Healthcare Facilities Defined

In accordance with the rules and regulations supporting the Mike Denton Infection Reporting Act, healthcare facilities are defined as general, critical access, and specialized hospitals (including pediatric hospitals, but excluding psychiatric, rehabilitation, long-term care, and eye hospitals) that are licensed pursuant to <u>Code of Alabama 1975</u>, § 22-21-20. This report only includes individual data on healthcare facilities open as of August 1, 2018, and those with 12 months of data in 2017.

For a complete list of the healthcare facilities included in this report, please see Alabama Hospitals Reporting Data, p 51.

Method of HAI Data Collection

The National Healthcare Safety Network (NHSN) is a secure, internet-based surveillance system which is used for the collection and reporting of HAI data by trained Infection Preventionists (IPs) or other trained NHSN Users at each healthcare facility. The IP or designated NHSN User is required to enter the HAI data into NHSN no later than the last day of the subsequent month. For example, all January events should be entered by March 1. Each Alabama healthcare facility must grant permission within NHSN for ADPH HAI program staff to view and analyze the specified HAI data so that they may, in turn, compile summary data for public reporting.

In the state of Alabama, HAI data required to be reported in NHSN include catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), and surgical site infections (SSIs) associated with colon surgeries and abdominal hysterectomies.



REPORTING VARIABLES

Catheter-Associated Urinary Tract Infection (CAUTI)

A catheter-associated urinary tract infection (CAUTI) is an infection associated with an indwelling urinary catheter. An indwelling urinary catheter, also referred to as a Foley catheter, is a urine drainage tube connected to a closed drainage system (bag). The catheter is inserted into the bladder through the urethra for the collection of urine over a period of time. A CAUTI must be reported if it occurs in a patient who has had an indwelling urinary catheter in place for greater than two calendar days before the onset of the UTI, according to CDC National Healthcare Safety Network (NHSN) established criteria. The patient may be with or without symptoms.

During 2016, Alabama hospitals were required to report CAUTIs that were attributed to medical wards, surgical wards, medical/surgical wards, adult critical care units, and pediatric critical care units. Facilities that did not have these wards or critical care units (as defined by NHSN) reported CAUTIs from mixed acuity wards and mixed age/mixed acuity wards. Hospitals were required to report CAUTI data using NHSN.

Facilities were also required to report monthly the number of days each patient was admitted (patient days) and the number of days each patient had an indwelling urinary catheter (catheter days) from the above wards or units (locations) using NHSN. The patient days and catheter days were counted at the same time each day; however, the time of day for collection was based on facility preference.

Central Line-Associated Bloodstream Infection (CLABSI)

A central line-associated bloodstream infection (CLABSI) is an infection that results from a central line catheter or umbilical catheter (if the patient is less than one year old). A central line is a catheter that terminates into one of the great blood vessels or near the heart, and is used for the administration of fluids, medications, intravenous nutrition, hemodynamic monitoring, and drawing blood. Central lines also include catheters used for infusions into the umbilical vein or artery in neonates. A CLABSI must be reported if it occurs in a patient that has had a central line or umbilical catheter in place at least two calendar days before a laboratory-confirmed bloodstream infection event occurs, and the bloodstream infection is not caused by an infection at another site in the body.

During 2016, CLABSIs within adult, pediatric, and neonatal critical care units were required to be reported using NHSN. Facilities were also required to report the total number of patients per day (patient days) and the number of patients per day with central lines (central line days) using NHSN each month from the above locations. The patient days and central line days were tallied at the same time each day; however, the time of day for collection was based on facility preference.

Surgical Site Infection (SSI)

A surgical site infection (SSI) is a procedure-associated HAI that results from an inpatient or outpatient surgery that involved an incision through the skin or mucous membranes. An SSI is reportable if the infection occurs in a patient within 30 days of the operative procedure if no implant was left in place or within 90 days of the surgery if an implant was left in place, and the infection was not caused by an infection at another site in the body in accordance with NHSN criteria. ADPH only collects data on inpatient procedures, i.e., those in which the date of admission and date of discharge are different. In 2014, the HDAC voted to only report on SSIs occurring in deep tissue and organ space in order to mirror the Centers for Medicare and Medicaid Services reporting requirements. In compliance with this decision, superficial SSIs are excluded from this annual report.

Only SSIs resulting from inpatient colon surgeries and abdominal hysterectomies performed by an Alabama healthcare facility are required to be reported. A colon surgery is a surgical procedure in which a portion of the colon (a.k.a large intestine) undergoes an operation, including incision, resection, or anastomosis (reconnection). An abdominal hysterectomy is a surgical procedure in which the uterus is removed through an incision in the lower abdomen. It may include removal of one or both ovaries, fallopian tubes, and use of laparoscopic or robotic surgical approaches. In addition to reporting SSIs for colon surgeries and abdominal hysterectomies, facilities were also required to report the total number of each procedure that was performed each month.

Volume (Low, Medium, and High)

A hospital's volume was determined based on the number of device days or procedures performed during the calendar year for each HAI measure (CAUTIs, CLABSIs, colon SSIs, and abdominal hysterectomy SSIs). The low-volume category consisted of the 25% of hospitals with the lowest device utilization days or procedures. Medium-volume consisted of the 50% of hospitals whose device utilization days or procedure counts were in the 2nd and 3rd quartiles, meaning they were in the middle. The high-volume category consisted of the 25% of hospitals whose device utilization days or procedure counts were the highest.



ACCURACY IN HAI REPORTING

ADPH Data Validation Program

Background: The Mike Denton Infection Reporting Act gave the Alabama Department of Public Health the responsibility and authority to evaluate the quality and accuracy of HAI reporting. The law also established the HDAC to advise the department regarding public reporting of HAIs. The Advisory Council agreed that annual validation of each healthcare facility's individual surveillance program was necessary to ensure that accurate, complete performance data is presented to the public.

Purpose: The purpose of the ADPH validation process is to:

- 1. Foster understanding of reporting expectations.
- 2. Improve reporting accuracy.
- 3. Provide opportunities for improving surveillance methods/resources.
- 4. Provide opportunities to correct errors prior to report publication.
- 5. Identify system issues affecting accurate reporting.
- 6. Engage/compel internal communication.
- 7. Minimize hospital reporting misconceptions.
- 8. Provide an educational opportunity rather than a regulatory visit (as regulatory visits are limited to willful and intentional failure to report).

Methods: A variety of methods were utilized to validate the different aspects of the reporting program. These methods included but were not limited to:

- 1. Verifying that all facility administrators completed the minimum required NHSN training.
- 2. Ensuring each facility conferred rights to ADPH to view their data.
- 3. Reviewing Monthly Plans for each facility.
- 4. Notifying NHSN facility administrators of discrepancies for correction.

Reporting Validation: This procedure was performed for each facility, for each HAI category that was required to be reported.

- 1. A 9-month report of NHSN data was provided to each facility to identify discrepancies. Each facility was asked to verify the data and provide updates if needed.
- 2. Submitted monthly data was reviewed for consistency and completeness.
- 3. Facilities were notified through e-mail or phone regarding missing, inconsistent, or duplicate data for the review period.
- 4. The annual data report was provided to each facility for 45 days to review data and make comments to explain performance if desired.
- 5. ADPH used CDC's 2016 External Validation Guidance and Toolkit parameters to validate the hospitals' accuracy in reporting HAIs through NHSN. The site visits consisted of the following four components:
 - a. Validating that the reported HAIs met the case criteria using case finding, laboratory notification, and data mining
 - b. Assessing whether the IP applied the NHSN definitions correctly
 - c. Assuring detection and verification of cases, and providing feedback on whether NHSN definitions were applied correctly (ensuring sensitivity and specificity of data)

d. Recommending ways for overall improvement, including strategies to advance infection control efforts and enhance data accuracy

The main information sources used in the validation process were hospital infection surveillance records, the NHSN line listing for the review period, and laboratory records. Following validation visits, the HAI Nurse Manager provided verbal and additional education regarding the correct application of NHSN definition of terms and CAUTI and CLABSI criteria for proficient identification and reporting at an exit interview. Written results were prepared and provided at a later date.

CLABSI Validation

For this annual report, ADPH validated the selected hospitals' 2017 CLABSI records. In accordance with the NHSN 2017 External Validation Guidance and Toolkit, the HAI Nurse Manager and HAI Staff Nurse conducted site visits at 21 facilities in the Alabama Hospital Association (AlaHA) regions using a targeted selection method for CLABSI validations. The selected facilities included a mixture of 1 low-volume, 2 medium-volume, and 18 high-volume hospitals.

Prior to the site visit, the hospital IP provided a list of positive blood cultures along with CLABSIs reported to NHSN. From these records a sample was taken using the Targeted Medical Record Selection Process. An average of 45 records were evaluated per facility, with a range of 34 to 60. Site visits consisted of record review using the 2017 CLABSI Medical Record Abstraction Tool from the toolkit. This method allowed for a structured medical review to assess if the NHSN criterion for a CLABSI was accurately applied.

Of the 937 records reviewed at the facilities, the NHSN CLABSI criterion was applied correctly over 99% of the time, compared with 100% in 2016. Most (86%) of the hospitals visited did not misidentify any CLABSI events. Additionally, two (25%) discrepancies were due to hospitals incorrectly classifying an infection as a CLABSI, while three (38%) were due to failure to identify a CLABSI.

CLABSI Validation Summary:						
Validation Year	# Records Reviewed	# CLABSIs Over-Reported	# CLABSIs Under-Reported	Total Discrepancies	Accuracy	
2014	977	16	30	46	95.3%	
2015	975	8	4	12	98.8%	
2016	869	0	0	0	100.0%	
2017	937	2	3	5	99.5%	

CAUTI Validation

For the second consecutive year, ADPH also selected hospitals for CAUTI validation based on their 2017 records. Rather than using the NHSN 2017 External Validation Guidance and Toolkit, hospitals were selected using a random stratified sampling method in order to specifically target more low- and medium-volume facilities from diverse regions of Alabama. Smaller, more rural facilities rarely received validation site visits in the past, and many only report CAUTIs, so this method was chosen in order to allow for site visits of facilities that were unlikely to receive them under the NHSN validation selection criteria. The Healthcare Infection and Prevention Nurse Manager conducted site visits at 5 low-volume and 9 medium-volume facilities in the Alabama Hospital Association (AlaHA) region.

Prior to the site visit, the hospital IP provided a list of positive urine cultures along with CAUTIs reported to NHSN. From these records, a sample was taken using the Targeted Medical Record Selection Process. An average of 33 records were evaluated per facility, with a range of 5 to 46. Site visits consisted of record review using the 2017 CAUTI Medical Record Abstraction Tool from the toolkit. This method allowed for a structured medical review to assess if the NHSN criterion for a CAUTI was accurately applied.

Of the 463 records reviewed at the facilities, the NHSN CAUTI criterion was applied correctly over 99% of the time. Most (93%) of the hospitals visited did not misidentify any CAUTI events. Additionally, zero discrepancies were due to hospitals incorrectly classifying an infection as a CAUTI, while one (100%) was due to failure to identify a CAUTI.

CAUTI Validation Summary:					
Validation Year	# Records Reviewed	# CAUTIS Over-Reported	# CAUTIs Under-Reported	Total Discrepancies	Accuracy
2016	458	1	1	2	99.6%
2017	463	0	1	1	99.8%



PERFORMANCE MEASUREMENT

Risk Adjustment

Comparing data between different facilities with diverse patient populations can be difficult. Some patients will be at higher risk for an HAI because of factors beyond the control of healthcare facilities. For this reason, risk stratification is important when making comparisons in order to avoid penalizing facilities for performing surgeries or using medical devices in patients that may carry higher risk of infection or complications. For CAUTI and CLABSI surveillance, facility locations (e.g., surgical intensive care unit, general medical ward) are used in risk adjustment. SSIs take into account the patient's pre-surgical medical status, length of surgery compared to similar surgeries, and the extent of the contamination of the surgical wound, after which logistic regression models are used to calculate the risk adjustment.

Standardized Infection Ratio

To determine how a hospital compares to other facilities nationally, the standardized infection ratio (SIR) is used. The SIR is the number of infections the facility reported for a given HAI category (CAUTI, CLABSI, colon SSI, and abdominal hysterectomy SSI), divided by the number of infections that were predicted using national baseline data. The predicted number of infections is adjusted for various risk factors within the facility, and it is also influenced by the number of procedures performed (for SSIs) or the total device-days (for CLABSIs and CAUTIs).

$$SIR = \frac{observed}{predicted}$$

- When an SIR is equal to 1, the observed number of events is the same as the predicted number.
- When the SIR is greater than 1, the observed number of events is greater than the predicted number.
- When the SIR is less than 1, the observed number of events is less than the predicted number.

Minimal Reporting Thresholds

When healthcare facilities perform a low volume of procedures or device placements at risk for HAIs, a relatively small number of infections may have a dramatic and sometimes misleading effect on their SIRs. For example, if a healthcare facility only performs a few colon surgeries in a year, the predicted number of SSIs related to colon surgeries could be calculated at 0.5 for that facility. Then, if one colon-related SSI is observed, their SIR would be 2 (1 divided by 0.5), indicating that they had considerably more infections than the national baseline. In contrast, 0 colon SSIs would make their SIR 0 (0/0.5), and they would compare very favorably to the national baseline. Neither of these SIRs would be very helpful in understanding the facility's true performance given the little amount of data that was available.

To minimize the risk of unfairly comparing healthcare facility SIRs due to low volume of procedures, the HDAC adopted CDC's NHSN minimum thresholds used in their Annual National Healthcare associated-Infections (HAI) Report. Thus, in order to report an SIR for a facility, the minimum number of predicted events must be greater than or equal to 1.

Hospital Performance Compared to 2015 National Baseline Data

A facility's performance is compared to the 2015 national baseline data by calculating the 95% confidence interval of the SIR in order to distinguish between small differences based on chance and larger differences based on true disparity in performance. The upper and lower limits of the confidence interval represent the range within which the "true" SIR for a facility is likely to occur, with 95% confidence. If this range includes 1, then the difference between the facility's performance and the national baseline is not statistically significant. These facilities are classified as "Similar" to the national baseline.

If the confidence interval for a facility's SIR does not include 1, the facility's performance was significantly different than the national baseline, meaning they either performed significantly better or worse. If the high end of the confidence interval is less than one, the facility had significantly fewer infections than expected, and they are classified as "Better" than the national baseline. In contrast, if the lower end of a facility's confidence interval is greater than 1, the facility had significantly more infections than expected and is classified as "Worse."

When a facility's SIR is classified as "Worse" for a given procedure or device, patients with this procedure or device are at greater risk of healthcare-associated infections here than at other hospitals across the nation. Facilities with "Better" SIRs present a lower risk of infection compared to the hospitals across the nation.

It is possible for two hospitals with similar SIR values to be classified differently ("Similar," "Better," or "Worse") compared to the national baseline. This is due to differences in their confidence intervals, which are influenced by the number of procedures or device-days that a particular hospital has for a particular HAI measure. For example, a hospital that does more colon surgeries will have a narrower confidence interval, which will make it easier to distinguish that hospital's performance from the national baseline (i.e., "Better" or "Worse"). A hospital that only performs a few colon surgeries will have a broader confidence interval, increasing the likelihood that the interval will contain one and the hospital will not be statistically different from the national baseline (i.e., "Similar").



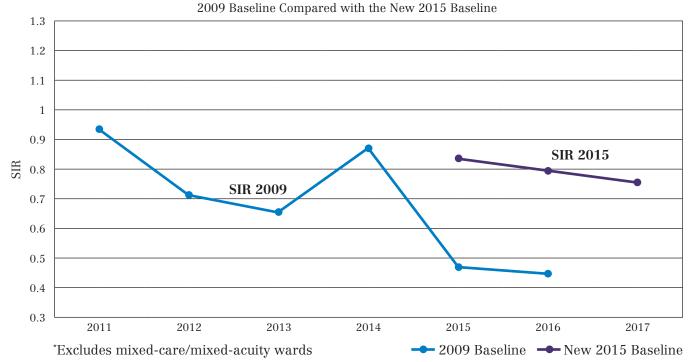
THE 2015 REBASELINE AND ANNUAL PROGRESS COMPARISONS

When healthcare facilities in Alabama enter HAI data into NHSN, CDC uses that data to calculate the SIR for each reporting state and facility. The SIR compares the number of infections that occurred in a facility or state to the number of infections that were "predicted" based on previous years of data reported nationally (i.e., baseline data). In Alabama's prior annual reports, the national baseline data for CAUTIs was from 2009, while the national baseline data for CLABSIs, abdominal hysterectomy SSIs, and colon surgery SSIs was from 2006-2008.

Beginning in 2017, CDC updated NHSN to use a new 2015 baseline for all infection measures, a process known as the "rebaseline." Since national rates of HAIs have declined over the past several years, most hospitals will compare less favorably to the national performance under the 2015 baseline than they did under the previous baseline, meaning that SIRs will increase. Risk adjustment methodology, including inclusion and exclusion criteria, was also updated with the rebaseline. NHSN allows data analysis using the old baseline for years 2011-2016, while the new baseline can be used for 2015 and later. Two thousand seventeen marks the first year that Alabama's annual report is using the new baseline.

SIRs calculated with different baselines are not directly comparable. For example, non-mixed units from acute care hospitals in Alabama reported 417 CAUTIs and 445,224 catheter days in 2015. Based on the 2009 baseline, NHSN predicted 892 CAUTIs for that time period, making the SIR 0.47. In contrast, using the new 2015 baseline, NHSN predicted 500 CAUTIs for an SIR of 0.83.

Alabama CAUTI SIRs by Year, Acute Care Hospitals*



To summarize, SIRs in this report are likely to be higher than those in previous reports, but this change is an artificial result of the new comparison baseline. To avoid misleading comparisons, the SIRs in the Executive Summary are all calculated under the new baseline. They will not match SIRs from previous reports, but they are a more accurate way to understand trend data over time.

PATHOGENS INVOLVED IN SURGICAL SITE INFECTIONS, 2017

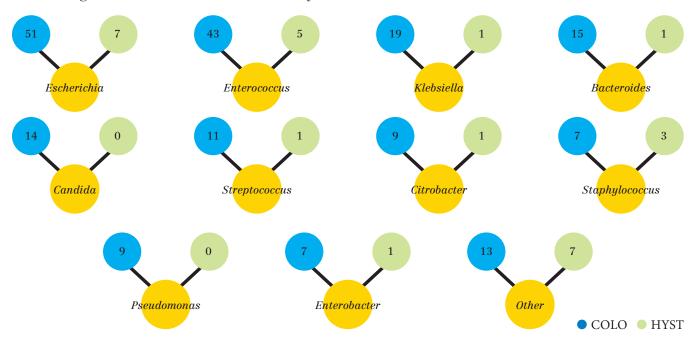
Despite the burden of HAIs in the state of Alabama and the growth of antibiotic drug resistant pathogens, most HAIs are preventable. In addition to monitoring the number of HAIs in a facility, data is also collected on the types of pathogens associated with these infections. Below, data are presented for pathogens identified from deep- and organ-level surgical site infections (SSIs) in 2017. These data do not represent all SSIs because cultures are not always performed and submitted to identify causative organisms. Additionally, multiple pathogens may be isolated from a single infection.

In 2017, Alabama hospitals reported 198 positive cultures from deep- and organ level SSIs associated with colon surgeries. *Escherichia* species were the most common pathogens identified in 2017 as well as 2016. *Escherichia* accounted for 51 (26%) of identified pathogens among non-superficial SSIs, compared to 52 of 211 (25%) in 2016. *Enterococcus* species were the second most commonly identified in 2017 and 2016, accounting for 43 (22%) in 2017 and 40 (19%) in 2016. While *Staphylococcus* was the third most common pathogen in 2016, *Klebsiella* was third in 2017 with 19 infections (10%). Interestingly, the ten most common pathogens were the same in 2016 and 2017.

A total of 27 positive cultures were reported from deep- and organ-level abdominal hysterectomy SSIs in 2017. *Escherichia* was the most common pathogen isolated in 2017 with 7 infections identified (26%), while *Enterococcus* was the second most common with 5 (22%). In contrast, *Enterococcus* was the most common for deep- and organ-level abdominal hysterectomy SSIs in 2016 with 7 (21%), and *Escherichia* was second with 6 (18%). Reports from prior years that included superficial SSI pathogens typically found *Staphylococcus* most commonly, but with superficial SSIs excluded, this pathogen drops to third most common in 2017 and 2016 with 3 (11%) and 5 (15%) respectively.

Pathogens identified in the "other" group in 2017 consisted of several different genera including *Proteus, Lactobacillus, Morganella,* as well as unspecified yeasts.

Pathogens Identified in Deep and Organ-Level Surgical Site Infections following Colon Surgeries (COLO) and Abdominal Hysterectomies (HYST) in NHSN: Alabama, 2017



Data acquired from NHSN August 8, 2018, based on surgeries performed in 2017

HAI DATA, STATEWIDE

Ninety-two Alabama hospitals reported 374 CAUTIs in 2017, associated with 434,730 catheter days. The SIR, which doesn't include critical access facilities, was 0.76. The SIR, number of CAUTIs, and catheter days reported were lower than those reported in 2016 (using the 2015 Baseline). Alabama performed better than the national performance. Medium- and high-volume hospitals performed better compared to the national performance with SIRs of 0.72 and 0.76 respectively, while low-volume hospitals performed similarly with an SIR of 1.43.

2017 Catheter-Associated Urinary Tract Infections (CAUTIs)					
	Number of CAUTIs	Total Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)*	
Alabama Hospitals Reporting: 92	374	434,730	0.76	Better	
Low-Volume Hospitals (Fewer than 419 catheter days)	4	4,858	1.43	Similar	
Medium-Volume Hospitals (419 to 6,846 catheter days)	56	105,426	0.72	Better	
High-Volume Hospitals (More than 6,846 catheter days)	313	325,029	0.76	Better	

Data acquired from NHSN: August 8, 2018

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infection associated with an indwelling catheter

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to the national baseline data (based on a 95% confidence interval)

^{*}Does not include Critical Access Hospitals

In 2017, 70 Alabama hospitals reported 210 central line-associated bloodstream infections (CLABSIs) over 209,723 central line days. Alabama performed similar than the national performance level, with an SIR of 0.91. Three hospitals performed better than the national baseline, and two hospitals performed worse. Medium- and high-volume hospitals performed similar to the national performance with SIRs of 0.78 and 0.92 respectively. Low-volume hospitals did not have enough central line days to compare to national baseline, but they reported 0 infections.

2017 Central Line-Associated Bloodstream Infections (CLABSIs)							
	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)*			
Alabama Hospitals Reporting: 70	210	209,723	0.91	Similar			
Low-Volume Hospitals (Fewer than 154 central line days)	0	1,076	N/A	-			
Medium-Volume Hospitals (154 to 3,695 central line days)	27	38,203	0.78	Similar			
High-Volume Hospitals (More than 3,695 central line days)	180	171,304	0.92	Similar			

Data acquired from NHSN: August 8, 2018

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

^{*}Does not include Critical Access Hospitals

In 2017, 67 Alabama hospitals reported 6,167 colon procedures, with 119 deep- or organ-level surgical site infections (SSIs) associated with these procedures. Overall, Alabama had an SIR of 0.80 for procedures in adults, indicating performance was better compared to the national baseline data. The SIR for pediatric procedures (i.e., those inpatients less than 18 years of age) was 1.13, indicating performance was similar to baseline. Of the hospitals that performed colon surgeries, 2 had significantly fewer infections in adults compared to the national baseline. No facility performed worse than the national baseline. Low-, medium-, and high-volume hospitals performed similarly in adult procedures compared to national baseline data. Additionally, low-volume hospitals reported no surgical site infections in adult or pediatric procedures.

2017 Surgical Site Infections (SSIs) Associated with Colon Surgeries*							
	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)*		
Alabama Hospitals	Adult	116	6,052	0.80	Better		
Reporting: 67	Pediatric	3	115	1.13	Similar		
Low-Volume Hospitals	Adult	0	111	0	Similar		
(Fewer than 14 total procedures)	Pediatric	0	1	N/A	-		
Medium-Volume Hospitals	Adult	25	1,672	0.71	Similar		
(14 to 133 total procedures)	Pediatric	2	89	1.04	Similar		
High-Volume Hospitals	Adult	91	4,269	0.85	Similar		
(More than 133 total procedures)	Pediatric	1	25	N/A			

Data acquired from NHSN: August 8, 2018

Procedures: the number of inpatient colon surgeries performed in 2017

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

^{*}Does not include superficial SSIs

Fifty-seven Alabama hospitals performed 6,956 adult and pediatric abdominal hysterectomies in 2017. Thirty-three deep- and organ-level surgical site infections (SSIs) were associated with these procedures in adults, and no SSIs were reported in pediatric procedures. The adult SIR of 0.77 was similar to national baseline data, while the pediatric SIR could not be calculated because too few procedures were performed. One facility had statistically fewer infections in adults than expected, and one had significantly more.

2017 Surgical Site Infections (SSIs) Associated with Abdominal Hysterectomies*							
	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)*		
Alabama Hospitals	Adult	33	6,952	0.77	Similar		
Reporting: 57	Pediatric	0	4	N/A	-		
Low-Volume Hospitals	Adult	0	54	N/A	-		
(Fewer than 8 procedures)	Pediatric	-	-	-	-		
Medium-Volume Hospitals	Adult	11	1,507	1.11	Similar		
(8 to 140 procedures)	Pediatric	0	1	N/A	-		
High-Volume Hospitals	Adult	22	5,391	0.68	Similar		
(More than 140 procedures)	Pediatric	0	3	N/A	-		

Data acquired from NHSN: August 8, 2018

Procedures: the number of inpatient abdominal hysterectomy surgeries performed in 2017

 ${\bf SSI:}$ a deep- or organ-level infection associated with an inpatient abdominal hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using abdominal hysterectomy procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

^{*}Does not include superficial SSIs

HAI DATA, HOSPITAL-SPECIFIC

The tables on the following pages list individual hospital performance in each of the four infection measures: CAUTIS, CLABSIS, colon SSIS, and abdominal hysterectomy SSIS. The hospitals are grouped by the geographical regions in which they are located. The region boundary is designated by the Alabama Hospital Association (AlaHA) regions. Hospitals are then grouped by volume of device days or procedures performed.

HAI REPORTING REGIONS



Birmingham Region

Catheter-Associated Urinary Tract Infections (CAUTIS)
January 1, 2017 - December 31, 2017

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-Volume Hospitals (fewer than 419 catheter days)							
St. Vincent's Blount	0	91	N/A	-			
Medium-Vo	lume Hospita	als (419 – 6,84	46 catheter days)				
Children's Health System	2	2,398	0.49	Similar			
St. Vincent's St. Clair	0	1,324	N/A	-			
Walker Baptist Medical Center	1	4,812	0.29	Similar			
High-Volume	e Hospitals (1	more than 6,8	346 catheter days)				
Brookwood Medical Center	10	8,131	1.26	Similar			
Grandview Medical Center	16	16,571	0.55	Better			
Medical West	7	9,596	0.73	Similar			
Princeton Baptist Medical Center	13	14,776	0.72	Similar			
Shelby Baptist Medical Center	4	9,872	0.44	Similar			
St. Vincent's Birmingham	21	18,634	1.07	Similar			
St. Vincent's East	24	13,764	1.20	Similar			
University of Alabama at Birmingham Hospital	27	39,883	0.32	Better			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Central Region

Catheter-Associated Urinary Tract Infections (CAUTIs)
January 1, 2017 - December 31, 2017

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)				
Low-Volum	Low-Volume Hospitals (fewer than 419 catheter days)							
Bullock County Hospital	0	113	N/A	-				
Crenshaw Community Hospital	0	315	N/A	-				
Elmore Community Hospital	0	342	N/A	-				
Georgiana Hospital	0	269	N/A	-				
Lake Martin Community Hospital	1	353	N/A	-				
Medium-Vo	lume Hospita	als (419 – 6,84	46 catheter days)					
Baptist Medical Center East	6	6,790	1.08	Similar				
Community Hospital	0	766	N/A	-				
East Alabama Medical Center - Lanier	0	1,189	N/A	-				
Jack Hughston Memorial Hospital	0	630	N/A	-				
L.V. Stabler Memorial Hospital	0	604	N/A	-				
Prattville Baptist Hospital	1	2,721	0.72	Similar				
Russell Medical Center	2	3,777	0.92	Similar				
St. Vincent's Chilton	0	458	N/A	-				
Vaughan Regional Medical Center	1	3,260	0.45	Similar				
High-Volume Hospitals (more than 6,846 catheter days)								
Baptist Medical Center South	28	15,196	1.02	Similar				
East Alabama Medical Center	11	8,773	1.47	Similar				
Jackson Hospital & Clinic	14	11,162	1.43	Similar				

Data acquired from NHSN: July 30, 2018

 $\mbox{N/A:}$ number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



North Region

Catheter-Associated Urinary Tract Infections (CAUTIS)
January 1, 2017 - December 31, 2017

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)			
Low-Volume Hospitals (fewer than 419 catheter days)							
Lakeland Community Hospital	0	411	N/A	-			
North Mississippi Medical Center- Hamilton	1	293	N/A	-			
Red Bay Hospital	1	394	N/A	-			
Medium-Vo	Medium-Volume Hospitals (419 – 6,846 catheter days)						
Athens Limestone Hospital	1	3,446	0.55	Similar			
Crestwood Medical Center	6	5,579	1.53	Similar			
Decatur Morgan Hospital - Parkway Campus	0	1,579	0	Similar			
Helen Keller Hospital	1	5,468	0.26	Similar			
Highlands Medical Center	3	1,783	N/A	-			
Lawrence Medical Center	1	518	N/A	-			
Marshall Medical Center North	0	2,842	0	Similar			
Marshall Medical Center South	2	3,541	0.80	Similar			
Russellville Hospital	0	1,143	N/A	-			
Shoals Hospital	1	1,070	N/A	-			
High-Volum	e Hospitals (1	more than 6,8	346 catheter days)				
Cullman Regional Medical Center	4	7,909	0.71	Similar			
Decatur Morgan Hospital - Decatur Campus	5	10,301	0.69	Similar			
Eliza Coffee Memorial Hospital	11	9,999	1.19	Similar			
Huntsville Hospital	27	26,217	0.83	Similar			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region

Catheter-Associated Urinary Tract Infections (CAUTIs)
January 1, 2017 - December 31, 2017

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)		
Low-Volume Hospitals (fewer than 419 catheter days)						
Cherokee Medical Center	0	159	N/A	-		
Clay County Hospital	1	347	N/A	-		
Tanner Medical Center - East Alabama	0	104	N/A	-		
Medium-Vo	lume Hospita	als (419 – 6,84	46 catheter days)			
Citizens Baptist Medical Center	0	1,204	N/A	-		
Coosa Valley Medical Center	0	2,385	0	Similar		
DeKalb Regional Medical Center	0	2,632	0	Similar		
Riverview Regional Medical Center	1	5,162	0.27	Similar		
Stringfellow Memorial Hospital	0	2,418	0	Similar		
High-Volume Hospitals (more than 6,846 catheter days)						
Gadsden Regional Medical Center	10	13,775	0.74	Similar		
Northeast Alabama Regional Medical Center	1	6,858	0.18	Better		

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region

Catheter-Associated Urinary Tract Infections (CAUTIS)
January 1, 2017 - December 31, 2017

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)	
Low-Volum	e Hospitals (fewer than 41	19 catheter days)		
-	-	-	-	-	
Medium-Vol	ume Hospita	ds (5419 – 6,8	46 catheter days)		
Andalusia Regional Hospital	1	2,207	0.85	Similar	
Dale Medical Center	0	689	N/A	-	
Medical Center Barbour	0	1,153	N/A	-	
Medical Center Enterprise	1	1,619	N/A	-	
Mizell Memorial Hospital	0	934	N/A	-	
Troy Regional Medical Center	0	1,266	N/A	-	
Wiregrass Medical Center	1	711	N/A	-	
High-Volume Hospitals (more than 6,846 catheter days)					
Flowers Hospital	8	11,564	0.74	Similar	
Southeast Alabama Medical Center	6	7,264	0.70	Similar	

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region

Catheter-Associated Urinary Tract Infections (CAUTIs)
January 1, 2017 - December 31, 2017

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of Catheter Days		Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)				
Low-Volume Hospitals (fewer than 419 catheter days)								
Choctaw General Hospital	0	75	N/A	-				
Evergreen Medical Center	0	249	N/A	-				
Grove Hill Memorial Hospital	0	256	N/A	-				
Jackson Medical Center	0	326	N/A	-				
John Paul Jones Hospital	0	40	N/A	-				
Washington County Hospital	0	179	N/A	-				
Medium-Vo	Medium-Volume Hospitals (419 – 6,846 catheter days)							
Atmore Community Hospital	1	793	N/A	-				
D.W. McMillan Memorial Hospital	0	1,077	N/A	-				
Monroe County Hospital	0	629	N/A	-				
North Baldwin Infirmary	0	1,024	N/A	-				
South Baldwin Regional Medical Center	1	3,910	0.36	Similar				
Springhill Medical Center	3	6,846	0.61	Similar				
University of South Alabama Children's & Women's Hospital	1	419	N/A	-				
University of South Alabama Medical Center	13	6,162	1.23	Similar				
High-Volume Hospitals (more than 6,846 catheter days)								
Mobile Infirmary Medical Center	24	21,140	0.97	Similar				
Providence Hospital	7	13,111	0.45	Better				
Thomas Hospital	8	7,517	1.38	Similar				

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



West Region

Catheter-Associated Urinary Tract Infections (CAUTIS)
January 1, 2017 - December 31, 2017

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIS Number Days		Ratio of Observed to Predicted Infections (SIR)*	2017 Hospital Performance compared to National Performance (2015)		
Low-Volume	e Hospitals (fewer than 41	19 catheter days)			
Greene County Hospital	0	38	N/A	-		
Hale County Hospital	0	68	N/A	-		
Hill Hospital of Sumter County	0	5	N/A	-		
Pickens County Medical Center	0	140 N/A		-		
Medium-Vo	lume Hospita	als (419 – 6,84	46 catheter days)			
Bibb Medical Center	0	473	N/A	-		
Bryan W. Whitfield Memorial Hospital	0	622	N/A	-		
Fayette Medical Center	2	885	N/A	-		
Northport Medical Center	3	2,537	1.17	Similar		
Northwest Medical Center	0	852	N/A	-		
High-Volume Hospitals (more than 6,846 catheter days)						
DCH Regional Medical Center	27	23,016	0.85	Similar		

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Birmingham Region

Central Line-Associated Bloodstream Infections (CLABSIs) January 1, 2017 - December 31, 2017

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs Number of Central Line Days		Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)		
Low-Volume	Hospitals (fe	wer than 154	central line days)			
St. Vincent's Blount	0	36	N/A	-		
Medium-Volu	ıme Hospital	s (154 – 3,695	central line days)			
St. Vincent's St. Clair	0	269	N/A	-		
Walker Baptist Medical Center	0	738	N/A	-		
High-Volume Hospitals (more than 3,695 central line days)						
Brookwood Medical Center	7	5,794	1.23	Similar		
Children's Health System	24	17,088	0.93	Similar		
Grandview Medical Center	2	10,131	0.18	Better		
Medical West	4	3,937	1.01	Similar		
Princeton Baptist Medical Center	10	8,368	1.18	Similar		
Shelby Baptist Medical Center	2	3,911	0.57	Similar		
St. Vincent's Birmingham	12	9,109	1.28	Similar		
St. Vincent's East	10	8,585	1.03	Similar		
University of Alabama at Birmingham Hospital	20	29,144	0.54	Better		

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Central Region

Central Line-Associated Bloodstream Infections (CLABSIs) January 1, 2017 - December 31, 2017

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs Number Line Days		Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)		
Low-Volume	Hospitals (fe	wer than 154	central line days)			
Community Hospital	0	14	N/A	-		
L.V. Stabler Memorial Hospital	0	54	N/A	-		
St. Vincent's Chilton	0	59	N/A	-		
Medium-Volu	ıme Hospital	s (154 – 3,695	central line days)			
Baptist Medical Center East	1	2,925	0.34	Similar		
East Alabama Medical Center - Lanier	0	178	N/A	-		
East Alabama Medical Center	5	2,774	2.08	Similar		
Prattville Baptist Hospital	0	249	N/A	-		
Russell Medical Center	0	215	N/A	-		
Vaughan Regional Medical Center	0	593	N/A	-		
High-Volume Hospitals (more than 3,695 central line days)						
Baptist Medical Center South	9	9,792	0.70	Similar		
Jackson Hospital & Clinic	10	5,358	2.15	Worse		

Data acquired from NHSN: July 30, 2018

 $\ensuremath{\text{N/A:}}$ number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



North Region

Central Line-Associated Bloodstream Infections (CLABSIs) January 1, 2017 - December 31, 2017

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs Number of Central Line Days		Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)		
Low-Volume	Hospitals (fe	wer than 154	central line days)			
Decatur Morgan Hospital - Parkway Campus	0	76	N/A	-		
Lakeland Community Hospital	0	7	N/A	-		
Russellville Hospital	0	68	N/A	-		
Medium-Volu	ıme Hospitalı	s (154 – 3,695	central line days)			
Athens Limestone Hospital	0	556	N/A	-		
Crestwood Medical Center	0	1,282	N/A	-		
Cullman Regional Medical Center	0	1,027	N/A	-		
Decatur Morgan Hospital - Decatur Campus	0	1,918	0	Similar		
Eliza Coffee Memorial Hospital	2	3,336	0.69	Similar		
Helen Keller Hospital	0	633	N/A	-		
Highlands Medical Center	0	358	N/A	-		
Marshall Medical Center North	1	291	N/A	-		
Marshall Medical Center South	0	314	N/A	-		
Shoals Hospital	0	212	N/A	-		
High-Volume	High-Volume Hospitals (more than 3,695 central line days)					
Huntsville Hospital	15	14,102	0.93	Similar		

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region

Central Line-Associated Bloodstream Infections (CLABSIs) January 1, 2017 - December 31, 2017

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-Volume	Hospitals (fe	wer than 154	central line days)				
Clay County Hospital	0	36	N/A	-			
Medium-Volu	ıme Hospital	s (154 – 3,695	central line days)				
Citizens Baptist Medical Center	0	314	N/A	-			
Coosa Valley Medical Center	0	414	N/A	-			
DeKalb Regional Medical Center	0	344	N/A	-			
Northeast Alabama Regional Medical Center	4	1,932	2.37	Similar			
Riverview Regional Medical Center	0	1,429	0	Similar			
Stringfellow Memorial Hospital	2	429	N/A	-			
High-Volume	High-Volume Hospitals (more than 3,695 central line days)						
Gadsden Regional Medical Center	10	4,551	2.53	Worse			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region

Central Line-Associated Bloodstream Infections (CLABSIs) January 1, 2017 - December 31, 2017

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs Number of Central Line Days		Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)	
Low-Volume	Hospitals (fe	wer than 154	central line days)		
Andalusia Regional Hospital	0	133	N/A	-	
Medical Center Enterprise	0	74	N/A	-	
Mizell Memorial Hospital	0	77	N/A	-	
Wiregrass Medical Center	0	105 N/A		-	
Medium-Volu	ıme Hospital	s (154 – 3,695	central line days)		
Dale Medical Center	0	247	N/A	-	
Flowers Hospital	1	2,387	0.48	Similar	
Medical Center Barbour	0	154	N/A	-	
Southeast Alabama Medical Center	6	3,196	2.16	Similar	
Troy Regional Medical Center	0	623	N/A	-	
High-Volume Hospitals (more than 3,695 central line days)					
-	-	-	-	-	

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region

Central Line-Associated Bloodstream Infections (CLABSIs) January 1, 2017 - December 31, 2017

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)	
Low-Volume	Hospitals (fe	wer than 154	central line days)		
Atmore Community Hospital	0	95	N/A	-	
D.W. McMillan Memorial Hospital	0	147	N/A	-	
Monroe County Hospital	0	38	N/A	-	
Medium-Volu	ıme Hospital	s (154 – 3,695	central line days)		
North Baldwin Infirmary	1	159	N/A	-	
South Baldwin Regional Medical Center	0	1,658	0	Similar	
Thomas Hospital	1	1,756	0.76	Similar	
University of South Alabama Medical Center	0	3,695	0	Better	
High-Volume	Hospitals (m	ore than 3,69	5 central line days	s)	
Mobile Infirmary Medical Center	11	11,440	1.11	Similar	
Providence Hospital	2	6,716	0.34	Similar	
Springhill Medical Center	2	6,641	0.4	Similar	
University of South Alabama Children's & Women's Hospital	17	6,658	1.51	Similar	

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



West Region

Central Line-Associated Bloodstream Infections (CLABSIs) January 1, 2017 - December 31, 2017

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)	
Low-Volume	Hospitals (fe	ewer than 154	central line days)		
Bryan W. Whitfield Memorial Hospital	0	11	N/A	-	
Fayette Medical Center	0	13	N/A	-	
Northwest Medical Center	0	33	N/A	-	
Medium-Volu	ıme Hospital	s (154 – 3,695	central line days)		
Northport Medical Center	3	1,358	1.81	Similar	
High-Volume Hospitals (more than 3,695 central line days)					
DCH Regional Medical Center	14	9,979	1.19	Similar	

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Birmingham Region

Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)
Low-Volu	me Hospit	als (fewer	r than 14 pro	cedures)	
St. Vincent's St. Clair	Adult	0	7	N/A	-
Medium	-Volume H	ospitals (14 – 133 proc	edures)	
Children's Hoolth Creators	Adult	0	1	N/A	-
Children's Health System	Pediatric	1	80	0.60	Similar
Medical West	Adult	2	77	1.28	Similar
Walker Baptist Medical Center	Adult	0	28	N/A	-
High-Volu	me Hospit	als (more	than 133 pro	ocedures)	
Brookwood Medical Center	Adult	6	203	1.72	Similar
Grandview Medical Center	Adult	0	199	0	Better
Princeton Baptist Medical Center	Adult	3	178	0.74	Similar
Shelby Baptist Medical Center	Adult	1	183	0.27	Similar
St. Vincent's Birmingham	Adult	6	344	0.73	Similar
St. Vincent's East	Adult	0	159	0	Better
University of Alabama at	Adult	15	690	0.71	Similar
Birmingham Hospital	Pediatric	0	5	N/A	-

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2017

 ${f SSI}$: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Central Region

Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-Volu	me Hospit	als (fewer	r than 14 pro	cedures)				
Jack Hughston Memorial Hospital	Adult	0	3	N/A	-			
L.V. Stabler Memorial Hospital	Adult	0	8	N/A	-			
Russell Medical Center	Adult	0	11	N/A	-			
St. Vincent's Chilton	Adult	0	3	N/A	-			
Medium-	Volume H	ospitals (14 – 133 proc	edures)				
Baptist Medical Center South	Adult	4	130	1.03	Similar			
East Alabama Medical Center - Lanier	Adult	1	18	N/A	-			
East Alabama Medical Center	Adult	0	133	0	Similar			
Princeton Baptist Medical Center	Adult	0	21	N/A	-			
Prattville Baptist Hospital	Adult	0	38	0	Similar			
High-Volume Hospitals (more than 133 procedures)								
D. C. M. P. L. C. A. F. A.	Adult	2	184	0.53	Similar			
Baptist Medical Center East	Pediatric	0	1	N/A	-			
Jackson Hospital & Clinic	Adult	1	136	0.33	Similar			

Data acquired from NHSN: July 30, 2018

 $\ensuremath{\text{N/A:}}$ number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2017

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



North Region

Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-Volu	me Hospit	als (fewer	than 14 pro	cedures)				
Highlanda Madical Center	Adult	0	3	N/A	-			
Highlands Medical Center	Pediatric	0	1	N/A	-			
Russellville Hospital	Adult	0	11	N/A	-			
Medium	-Volume H	ospitals (1	14 – 133 proc	edures)				
Athens Limestone Hospital	Adult	0	47	N/A	-			
Cullman Regional Medical Center	Adult	2	83	1.12	Similar			
Decatur Morgan Hospital - Decatur Campus	Adult	0	129	0	Similar			
Eliza Coffee Memorial Hospital	Adult	1	83	0.54	Similar			
Helen Keller Hospital	Adult	2	54	1.61	Similar			
Marshall Medical Center North	Adult	2	35	N/A	-			
Marshall Medical Center South	Adult	1	27	N/A	-			
Shoals Hospital	Adult	2	21	N/A	-			
High-Volume Hospitals (more than 133 procedures)								
Cullman Regional Medical Center	Adult	1	146	0.31	Similar			
Haratarilla Haanital	Adult	24	603	1.43	Similar			
Huntsville Hospital	Pediatric	1	17	N/A	-			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2017

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region

Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)		
Low-Volu	me Hospit	als (fewer	than 14 pro	cedures)			
Citizens Baptist Medical Center	Adult	0	5	N/A	-		
Clay County Hospital	Adult	0	1	N/A	-		
Stringfellow Memorial Hospital	Adult	0	13	N/A	-		
Medium	Volume H	ospitals (14 – 133 proc	edures)			
Coosa Valley Medical Center	Adult	0	23	N/A	-		
DeKalb Regional Medical Center	Adult	0	20	N/A	-		
Gadsden Regional Medical Center	Adult	0	100	0	Similar		
Northeast Alabama Regional	Adult	0	108	0	Similar		
Medical Center	Pediatric	0	1	N/A	-		
Riverview Regional Medical Center	Adult	0	37	N/A	-		
High-Volume Hospitals (more than 133 procedures)							
-	-	-	-	-	-		

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2017

 ${\bf SSI}$: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region

Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)				
Low-Volu	me Hospit	als (fewer	r than 14 pro	cedures)					
Medical Center Barbour	Adult	0	8	N/A	-				
Mizell Memorial Hospital	Adult	0	10	N/A	-				
Medium-	Medium-Volume Hospitals (14 – 133 procedures)								
Andalusia Regional Hospital	Adult	0	22	N/A	-				
Dale Medical Center	Adult	0	15	N/A	-				
Flowers Hospital	Adult	1	117	0.39	Similar				
Medical Center Enterprise	Adult	1	22	N/A	-				
Troy Regional Medical Center	Adult	0	25	N/A	-				
Wiregrass Medical Center	Adult	0	16	N/A	-				
High-Volume Hospitals (more than 133 procedures)									
Southeast Alabama Medical Center	Adult	1	182	0.24	Similar				
Southeast Alabama Medical Center	Pediatric	0	1	N/A	-				

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2017

 ${f SSI}$: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region

Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)
Low-Volu	me Hospit	als (fewer	r than 14 pro	cedures)	
Atmore Community Hospital	Adult	0	6	N/A	-
Monroe County Hospital	Adult	0	2	N/A	-
Medium	-Volume H	ospitals (1	14 – 133 proc	edures)	
D.W. McMillan Memorial Hospital	Adult	0	26	N/A	-
North Baldwin Infirmary	Adult	0	22	N/A	-
South Baldwin Regional Medical Center	Adult	0	43	N/A	-
Thomas Hospital	Adult	5	129	2.08	Similar
University of South Alabama	Adult	1	8	N/A	-
Children's & Women's Hospital	Pediatric	1	8	N/A	-
High-Volu	me Hospit	als (more	than 133 pro	ocedures)	
Mobile Infirmary Medical Center	Adult	6	321	0.76	Similar
Providence Hospital	Adult	5	159	1.45	Similar
Comingbill Medical Contes	Adult	1	135	0.34	Similar
Springhill Medical Center	Pediatric	0	1	N/A	-
University of South Alabama Medical Center	Adult	8	145	1.42	Similar

Data acquired from NHSN: July 30, 2018

 $\ensuremath{\text{N/A:}}$ number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2017

 ${f SSI}$: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



West Region
Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)				
Low-Volum	Low-Volume Hospitals (fewer than 14 procedures)								
Bryan W. Whitfield Memorial Hospital	Adult	0	2	N/A	-				
Fayette Medical Center	Adult	0	10	N/A	-				
Northwest Medical Center	Adult	0	3	N/A	-				
Medium-	Volume H	ospitals (14 – 133 proc	edures)					
Northport Medical Center	Adult	0	14	N/A	-				
High-Volume Hospitals (more than 133 procedures)									
DCH Regional Medical Center	Adult	11	302	1.42	Similar				

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

 $\textbf{Procedures:} \ \text{the number of inpatient colon surgeries performed in 2017}$

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Birmingham Region

Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-Volu	ıme Hospi	tals (fewe	r than 8 proc	cedures)				
-	-	-	-	-	-			
Medium	-Volume I	Hospitals (8 – 140 proce	edures)				
Grandview Medical Center	Adult	0	132	N/A	-			
Medical West	Adult	1	13	N/A	-			
Princeton Baptist Medical Center	Adult	0	53	N/A	-			
Shelby Baptist Medical Center	Adult	0	71	N/A	-			
St. Vincent's East	Adult	1	97	N/A	-			
St. Vincent's St. Clair	Adult	0	45	N/A	-			
Walker Baptist Medical Center	Adult	1	36	N/A	-			
High-Volume Hospitals (more than 140 procedures)								
Brookwood Medical Center	Adult	0	887	0	Better			
St. Vincent's Birmingham	Adult	1	490	0.41	Similar			
University of Alabama at Birmingham Hospital	Adult	4	768	0.63	Similar			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2017

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

 ${\bf Better:}$ indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Central RegionSurgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2017 - December 31, 2017

Hospital Name Low-Volu	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)				
Russell Medical Center	Adult	0	1	N/A	-				
Medium	Medium-Volume Hospitals (8 – 140 procedures)								
Baptist Medical Center South	Adult	0	74	N/A	-				
Vaughan Regional Medical Center	Adult	0	37	N/A	-				
High-Volu	me Hospit	als (more	than 140 pro	ocedures)					
Baptist Medical Center East	Adult	4	494	1.66	Similar				
Daptist Medical Center East	Pediatric	0	1	N/A	-				
East Alabama Medical Center	Adult	1	351	0.62	Similar				
East Alabama Medical Center	Pediatric	0	1	N/A	-				
Jackson Hospital & Clinic	Adult	5	203	3.61	Worse				

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2017

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



North Region

Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-Volu	ıme Hospi	tals (fewe	r than 8 prod	cedures)				
Marshall Medical Center North	Adult	0	2	N/A	-			
Russellville Hospital	Adult	0	4	N/A	-			
Medium	-Volume I	Hospitals (8 – 140 proce	edures)				
Athens Limestone Hospital	Adult	0	59	N/A	-			
Cullman Regional Medical Center	Adult	1	29	N/A	-			
Decatur Morgan Hospital - Decatur Campus	Adult	0	54	N/A	-			
Decatur Morgan Hospital - Parkway Campus	Adult	0	46	N/A	-			
Eliza Coffee Memorial Hospital	Adult	0	65	N/A	-			
Helen Keller Hospital	Adult	0	10	N/A	-			
Highlands Medical Center	Adult	0	25	N/A	-			
Marshall Medical Center South	Adult	0	28	N/A	-			
High-Volume Hospitals (more than 140 procedures)								
Cullman Regional Medical Center	Adult	1	199	N/A	-			
Huntsville Hospital	Adult	3	718	0.50	Similar			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2017

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region

Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures r than 8 proc	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)		
Citizens Baptist Medical Center	Adult	0	6	N/A	-		
DeKalb Regional Medical Center	Adult	0	1	N/A	-		
Riverview Regional Medical Center	Adult	0	3	N/A	-		
Medium	-Volume I	Iospitals (8 – 140 proce	edures)			
Coosa Valley Medical Center	Adult	0	8	N/A	-		
Gadsden Regional Medical Center	Adult	0	99	N/A	-		
Northeast Alabama Regional	Adult	0	85	N/A	-		
Medical Center	Pediatric	0	1	N/A	-		
High-Volume Hospitals (more than 140 procedures)							
-	-	-	-	-	-		

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2017

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region

Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-volt	ıme Hospi	tais (iewe	r than 8 prod	ceaures)				
Andalusia Regional Hospital	Adult	0	4	N/A	-			
Medical Center Barbour	Adult	0	1	N/A	-			
Wiregrass Medical Center	Adult	0	5	N/A	-			
Medium	-Volume I	Hospitals ((8 – 140 proc	edures)				
Medical Center Enterprise	Adult	1	79	N/A	-			
Troy Regional Medical Center	Adult	0	26	N/A	-			
High-Volume Hospitals (more than 140 procedures)								
Flowers Hospital	Adult	1	264	0.66	Similar			
	Adult	0	226	0	Similar			
Southeast Alabama Medical Center	Pediatric	0	1	N/A	-			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2017

 ${\bf SSI}$: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region

Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)			
Low-Volu	ıme Hospi	tals (fewe	r than 8 proc	cedures)				
D.W. McMillan Memorial Hospital	Adult	0	7	N/A	-			
Monroe County Hospital	Adult	0	5	N/A	-			
North Baldwin Infirmary	Adult	0	6	N/A	-			
University of South Alabama Medical Center	Adult	0	3	N/A	-			
Medium	-Volume I	Hospitals (8 – 140 proce	edures)				
Grove Hill Memorial Hospital	Adult	0	21	N/A	-			
South Baldwin Regional Medical Center	Adult	0	8	N/A	-			
University of South Alabama Children's & Women's Hospital	Adult	1	140	0.87	Similar			
High-Volume Hospitals (more than 140 procedures)								
Mobile Infirmary Medical Center	Adult	1	220	0.74	Similar			
Providence Hospital	Adult	0	189	N/A	-			
Springhill Medical Center	Adult	1	197	0.97	Similar			
Thomas Hospital	Adult	0	185	N/A	-			

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2017

 ${\bf SSI:}$ a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



West Region

Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2017 - December 31, 2017

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2017 Hospital Performance compared to National Performance (2015)		
Low-Volume Hospitals (fewer than 8 procedures)							
Bryan W. Whitfield Memorial Hospital	Adult	0	1	N/A	-		
Pickens County Medical Center	Adult	0	5	N/A	-		
Medium-Volume Hospitals (8 – 140 procedures)							
DCH Regional Medical Center	Adult	5	113	N/A	-		
Northport Medical Center	Adult	0	31	N/A	-		
Northwest Medical Center	Adult	0	23	N/A	-		
High-Volume Hospitals (more than 140 procedures)							
-	-	-	-	-	-		

Data acquired from NHSN: July 30, 2018

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2017

 ${\bf SSI}$: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)



DEFINITIONS AND ACRONYMS

ADPH: Alabama Department of Public Health

AlaHA: Alabama Hospital Association

CAUTI: Catheter-Associated Urinary Tract Infection

CDC: Centers for Disease Control and Prevention

CLABSI: Central Line-Associated Bloodstream Infection

COLO: Colon Surgery

HAI: Healthcare-Associated Infection

HDAC: Healthcare Data Advisory Council

HYST: Abdominal Hysterectomy

IP: Infection Preventionist

N/A: Not Applicable

NHSN: National Healthcare Safety Network

SIR: Standardized Infection Ratio

SSI: Surgical Site Infection

ALABAMA HOSPITALS REPORTING DATA

Facility	Region	Pages
Andalusia Regional Hospital	Southeast Region	26, 33, 40, 47
Athens Limestone Hospital	North Region	24, 31, 38, 45
Atmore Community Hospital	Southwest Region	27, 34, 41
Baptist Medical Center East	Central Region	23, 30, 37, 44
Baptist Medical Center South	Central Region	23, 30, 37, 44
Bibb Medical Center	West Region	28
Brookwood Medical Center	Birmingham	22, 29, 36, 43
Bryan W. Whitfield Memorial Hospital	West Region	28, 35, 42, 49
Bullock County Hospital	Central Region	23
Cherokee Medical Center	Northeast Region	25
Children's Health System Of Alabama	Birmingham	22, 29, 36
Choctaw General Hospital	Southwest	27
Citizens Baptist Medical Center	Northeast Region	25, 32, 39, 46
Clay County Hospital	Northeast Region	25, 32
Community Hospital	Central Region	23, 30, 37
Coosa Valley Medical Center	Northeast Region	25, 32, 39, 46
Crenshaw Community Hospital	Central Region	23
Crestwood Medical Center	North Region	24, 31, 38, 45
Cullman Regional Medical Center	North Region	24, 31, 38, 45
D.W. Mcmillan Memorial Hospital	Southwest Region	27, 34, 41, 48
Dale Medical Center	Southeast Region	26, 33, 40
DCH Regional Medical Center	West Region	28, 35, 42, 49
Decatur Morgan Hospital - Decatur Campus	North Region	24, 31, 38, 45
Decatur Morgan Hospital - Parkway Campus	North Region	24, 31, 45
Dekalb Regional Medical Center	Northeast Region	25, 32, 39, 46
East Alabama Medical Center	Central Region	23, 30, 37, 44
East Alabama Medical Center (EAMC) - Lanier	Central Region	23, 30, 37, 44
Eliza Coffee Memorial Hospital	North Region	24, 31, 38, 45
Elmore Community Hospital	Central Region	23
Ennote Community Hospital	deninai megieni	1

Fayette Medical Center	West Region	28, 35, 42
Flowers Hospital	Southeast Region	26, 33, 40, 47
Gadsden Regional Medical Center	Northeast Region	25, 32, 39, 46
Georgiana Hospital	Central Region	23
Greene County Hospital	West Region	28
Grandview Medical Center	Birmingham	22, 29, 36, 43
Grove Hill Memorial Hospital	Southwest Region	27, 48
Hale County Hospital	West Region	28
Helen Keller Hospital	North Region	24, 31, 38, 45
Highlands Medical Center	North Region	24, 31, 38, 45
Hill Hospital Of Sumter County	West Region	28
Huntsville Hospital	North Region	24, 31, 38, 45
John Paul Jones Hospital	Southwest Region	27
Jack Hughston Memorial Hospital	Central Region	23, 37
Jackson Hospital & Clinic	Central Region	23, 30, 37, 44
Jackson Medical Center	Southwest Region	27
Lake Martin Community Hospital	Central Region	23
Lakeland Community Hospital	North Region	24, 31
Lawrence Medical Center	North Region	24
L.V. Stabler Memorial Hospital	Central Region	23, 30, 37
Marshall Medical Center North	North Region	24, 31, 38, 45
Marshall Medical Center South	North Region	24, 31, 38, 45
Medical Center Barbour	Southeast Region	26, 33, 40, 47
Medical Center Enterprise	Southeast Region	26, 33, 40, 47
Medical West	Birmingham	22, 29, 36, 43
Mizell Memorial Hospital	Southeast Region	26, 33, 40, 47
Mobile Infirmary Medical Center	Southwest Region	27, 34, 41, 48
Monroe County Hospital	Southwest Region	27, 34, 41
North Baldwin Infirmary	Southwest Region	27, 34, 41, 48
North Mississippi Medical Center - Hamilton	North Region	24
Northeast Alabama Regional Medical Center	Northeast Region	25, 32, 39, 46
Northport Medical Center	West Region	28, 35, 42, 49

N d W P 1C d	TAT 4 D -:	20 25 42 40
Northwest Medical Center	West Region	28, 35, 42, 49
Pickens County Medical Center	West Region	28, 49
Prattville Baptist Hospital	Central Region	23, 30, 37
Princeton Baptist Medical Center	Birmingham	22, 29, 36, 43
Providence Hospital	Southwest Region	27, 34, 41, 48
Red Bay Hospital	North Region	24
Riverview Regional Medical Center	Northeast Region	25, 32, 39, 46
Russell Medical Center	Central Region	23, 30, 37, 44
Russellville Hospital	North Region	24, 31, 38, 45
Shelby Baptist Medical Center	Birmingham	22, 29, 36, 43
Shoals Hospital	North Region	24, 31, 38
South Baldwin Regional Medical Center	Southwest Region	27, 34, 41, 48
Southeast Alabama Medical Center	Southeast Region	26, 33, 40, 47
Springhill Medical Center	Southwest Region	27, 34, 41, 48
St. Vincent's Birmingham	Birmingham	22, 29, 36, 43
St. Vincent's Blount	Birmingham	22, 29, 43
St. Vincent's Chilton	Birmingham	23, 30, 37
St. Vincent's East	Birmingham	22, 29, 36, 43
St. Vincent's St. Clair	Birmingham	22, 29, 36, 43
Stringfellow Memorial Hospital	Northeast Region	25, 32, 39
Tanner Medical Center/East Alabama	Northeast Region	25
Thomas Hospital	Southwest Region	27, 34, 41, 48
Troy Regional Medical Center	Southeast Region	26, 33, 40, 47
University Of Alabama At Birmingham (UAB) Hospital	Birmingham	22, 29, 36, 43
University Of South Alabama (USA) Children's & Women's Hospital	Southwest Region	27, 34, 41, 48
University Of South Alabama (USA) Medical Center	Southwest Region	27, 34, 41, 48
Vaughan Regional Medical Center	Central Region	23, 30, 37, 44
Walker Baptist Medical Center	Birmingham	22, 29, 36, 43
Washington County Hospital	Southwest Region	27
Wedowee Hospital	Northeast Region	See Tanner Medical Center/ East Alabama
Wiregrass Medical Center	Southeast Region	26, 33, 40, 47

ALABAMA HEALTHCARE DATA ADVISORY COUNCIL 2017 MEMBERS

Scott Harris, M.D., M.P.H., State Health Officer - Chair

Alabama Hospital Association Appointees

Bernard Camins, M.D., Healthcare Epidemiologist, University of Alabama Birmingham Hospital

Sam Dean, Administrator, USA Medical Hospital

Brenda Duncan, Director of Quality Services, Russell Medical Center

Beth Goodall, Epidemiology Director, DCH Regional Medical Center

Roslyn Jett-Mitchell, Infection Preventionist, Huntsville Hospital

Donald Jones, Administrator, Fayette Medical Center

Business Council of Alabama Appointees

Paul Graham, Grandview Medical Center

Donna Lawson, Brookwood Baptist Health

Mineral District Medical Society

Serita Newton, M.D., 1981MD

Governor Appointed Consumer Member

TBD

Blue Cross and Blue Shield of Alabama Appointee

TBD

Alabama Association of Health Plans Appointee

Jeannie O'Malley, Vice President

State Health Officer Appointed Member from the Association for Professionals in Infection Control and Epidemiology

Teresa Fox, BSMT (ASCP), CIC, M.Ed., Performance Improvement Advisor, Alabama Quality Assurance Foundation

Public Education Employees Health Insurance Plan Appointee

Diane Scott, CPA, Chief Financial Officer

State Employees Insurance Board Appointee

Keith Cox, CPA

Medical Association of the State of Alabama

TBD

